

Table H-1: 2001 CH<sub>4</sub> Emissions from Petroleum Production Field Operations

Activity/Equipment	Emission Factor Units	Activity Factor Units	Emissions (Bcf/yr)
<b>Vented Emissions</b>			<b>48.027</b>
Oil Tanks	18 scf of CH <sub>4</sub> /bbl crude	1,251 MMbbl/yr (non stripper wells)	22.086
Pneumatic Devices, High Bleed	345 scfd CH <sub>4</sub> /device	142,872 No. of high-bleed devices	17.998
Pneumatic Devices, Low Bleed	35 scfd CH <sub>4</sub> /device	265,334 No. of low-bleed devices	3.342
Chemical Injection Pumps	248 scfd CH <sub>4</sub> /pump	28,595 No. of pumps	2.589
Vessel Blowdowns	78 scfy CH <sub>4</sub> /vessel	186,546 No. of vessels	0.015
Compressor Blowdowns	3,775 scf/yr of CH <sub>4</sub> /compressor	2,532 No. of compressors	0.010
Compressor Starts	8,443 scf/yr. of CH <sub>4</sub> /compressor	2,532 No. of compressors	0.021
Stripper wells	2,345 scf/yr of CH <sub>4</sub> /stripper well	329,434 No. of stripper wells vented	0.818
Well Completion Venting	733 scf/completion	4,731 Oil well completions	0.003
Well Workovers	96 scf CH <sub>4</sub> /workover	40,050 Oil well workovers	0.004
Pipeline Pigging	2.40 scfd of CH <sub>4</sub> /pig station	0 No. of crude pig stations	0.000
Offshore Platforms, Gulf of Mexico	1,283 scfd CH <sub>4</sub> /platform	1,832 No. of oil platforms	0.858
Offshore Platforms, Other U.S. Areas	1,283 scfd CH <sub>4</sub> /platform	23 No. of oil platforms	0.011
<b>Fugitive Emissions</b>			<b>2..587</b>
Offshore Platforms, Gulf of Mexico	56 scfd CH <sub>4</sub> /platform	1,832 No. of oil platforms	0.037
Offshore Platforms, Other U.S. Areas	56 scfd CH <sub>4</sub> /platform	23 No. of oil platforms	0.000
Oil Wellheads (heavy crude)	0.13 scfd/well	14,422 No. of hvy. crude wells *	0.001
Oil Wellheads (light crude)	16.6 scfd/well	190,144 No. of lt. crude wells *	1.045
Separators (heavy crude)	0.15 scfd CH <sub>4</sub> /separator	10,972 No. of hvy. crude seps.	0.001
Separators (light crude)	14 scfd CH <sub>4</sub> /separator	99,858 No. of lt. crude seps.	0.505
Heater/Treaters (light crude)	19 scfd CH <sub>4</sub> /heater	75,716 No. of heater treaters	0.530
Headers (heavy crude)	0.08 scfd CH <sub>4</sub> /header	13,929 No. of hvy. crude hdrs.	0.000
Headers (light crude)	11 scfd CH <sub>4</sub> /header	43,183 No. of lt. crude hdrs.	0.171
Floating Roof Tanks	338,306 scf CH <sub>4</sub> /floating roof tank/yr.	24 No. of floating roof tanks	0.008
Compressors	100 scfd CH <sub>4</sub> /compressor	2,532 No. of compressors	0.092
Large Compressors	16,360 scfd CH <sub>4</sub> /compressor	0 No. of large comprs.	0.000
Sales Areas	41 scf CH <sub>4</sub> /loading	1,764,218 Loadings/year	0.071
Pipelines	0 scfd of CH <sub>4</sub> /mile of pipeline	30,467 Miles of gathering line	0.000
Well Drilling	0 scfd of CH <sub>4</sub> /oil well drilled	7,437 No. of oil wells drilled	0.000
Battery Pumps	0.24 scfd of CH <sub>4</sub> /pump	160,200 No. of battery pumps	0.014
<b>Combustion Emissions</b>			<b>4.186</b>
Gas Engines	0.24 scf CH <sub>4</sub> /HP-hr	15,950 MMHP-hr	3.828
Heaters	0.52 scf CH <sub>4</sub> /bbl	2117.4 MBbl/yr	0.001
Well Drilling	2,453 scf CH <sub>4</sub> /well drilled	7,437 Oil wells drilled, 1995	0.018
Flares	20 scf CH <sub>4</sub> /per Mcf flared	492,582 Mcf flared/yr	0.010
Offshore Platforms, Gulf of Mexico	481 scfd CH <sub>4</sub> /platform	1,852 No. of oil platforms	0.325
Offshore Platforms, Other U.S. Areas	481 scfd CH <sub>4</sub> /platform	23 No. of oil platforms	0.004
<b>Process Upset Emissions</b>			<b>0.561</b>
Platform Emergency Shutdowns	256,888 scfy/platform	1,875 No. of platforms	0.482
Pressure Relief Valves	35 scf/yr/PR valve	176,866 No. of PR valves	0.006
Well Blowouts Offshore	5.0 MMscf/blowout	2.25 No. of blowouts/yr	0.011
Well Blowouts Onshore	2.5 MMscf/blowout	24.8 No. of blowouts/yr	0.062
<b>Total (excluding stripper wells)</b>			<b>55.36</b>

